



Ursa Operating Company, LLC

Rockies Region

Yater

YATER 12D-17-07-95

Wellbore #1

Design: Actual

End of Well Report

19 March, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well YATER 12D-17-07-95
Project:	Rockies Region	TVD Reference:	YATER 12D-17-07-95 @ 5536.0usft (Capstar 321)
Site:	Yater	MD Reference:	YATER 12D-17-07-95 @ 5536.0usft (Capstar 321)
Well:	YATER 12D-17-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Project		Rockies Region	
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Yater			
Site Position:		Northing:		1,593,358.14 usft	
From:	Lat/Long	Easting:		2,286,525.77 usft	
Position Uncertainty:		Slot Radius:		13-3/16 "	
				Latitude: 39° 26' 7.071 N	
				Longitude: 108° 1' 35.041 W	
				Grid Convergence: -1.59 °	

Well		YATER 12D-17-07-95, SHL LAT: 39.435227490 LONG: -108.026477765				
Well Position	+N/-S	0.0 usft	Northing:	1,593,333.23 usft	Latitude:	39° 26' 6.819 N
	+E/-W	0.0 usft	Easting:	2,286,503.16 usft	Longitude:	108° 1' 35.320 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,536.0 usft	Ground Level:	5,519.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/23/2014	9.93	65.59	51,878

Design		Actual			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)		+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0		0.0	0.0	338.18

Survey Program		Date	3/19/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
152.0	6,856.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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Site:	Yater	MD Reference:	YATER 12D-17-07-95 @ 5536.0usft (Capstar 321)
Well:	YATER 12D-17-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
152.0	1.16	119.33	152.0	-1.2	-0.8	1.3	0.76	0.76	0.00	
180.0	1.10	130.74	180.0	-1.7	-1.1	1.8	0.83	-0.21	40.75	
209.0	1.14	132.58	209.0	-2.2	-1.4	2.2	0.19	0.14	6.34	
241.0	0.83	143.57	241.0	-2.7	-1.8	2.6	1.13	-0.97	34.34	
271.0	0.48	148.62	271.0	-3.0	-2.1	2.8	1.18	-1.17	16.83	
301.0	0.44	148.40	301.0	-3.2	-2.3	2.9	0.13	-0.13	-0.73	
331.0	0.11	131.41	331.0	-3.4	-2.5	3.0	1.12	-1.10	-56.63	
361.0	0.44	302.03	361.0	-3.3	-2.4	2.9	1.83	1.10	568.73	
391.0	1.01	324.40	391.0	-3.0	-2.1	2.7	2.09	1.90	74.57	
421.0	1.36	332.14	421.0	-2.4	-1.6	2.3	1.28	1.17	25.80	
451.0	1.71	332.38	451.0	-1.6	-0.9	2.0	1.17	1.17	0.80	
481.0	1.80	326.51	480.9	-0.7	-0.1	1.5	0.67	0.30	-19.57	
511.0	1.85	327.48	510.9	0.3	0.7	1.0	0.20	0.17	3.23	
541.0	1.85	326.73	540.9	1.2	1.5	0.5	0.08	0.00	-2.50	
571.0	1.96	329.21	570.9	2.2	2.4	-0.1	0.46	0.37	8.27	
601.0	1.95	333.00	600.9	3.2	3.3	-0.6	0.43	-0.03	12.63	
631.0	1.89	329.15	630.9	4.2	4.1	-1.1	0.47	-0.20	-12.83	
661.0	1.98	337.59	660.8	5.2	5.0	-1.5	1.00	0.30	28.13	
691.0	1.88	337.54	690.8	6.2	6.0	-1.9	0.33	-0.33	-0.17	
721.0	1.80	343.91	720.8	7.2	6.9	-2.2	0.73	-0.27	21.23	
751.0	1.93	345.14	750.8	8.2	7.8	-2.5	0.45	0.43	4.10	
781.0	2.20	343.08	780.8	9.3	8.9	-2.8	0.93	0.90	-6.87	
811.0	2.55	338.11	810.7	10.5	10.0	-3.2	1.35	1.17	-16.57	
841.0	3.39	342.03	840.7	12.0	11.5	-3.7	2.88	2.80	13.07	
871.0	4.22	340.56	870.6	14.0	13.4	-4.3	2.79	2.77	-4.90	
901.0	5.05	339.67	900.5	16.5	15.7	-5.2	2.78	2.77	-2.97	

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Well:	YATER 12D-17-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
931.0	6.06	337.28	930.4	19.4	18.4	-6.2	3.45	3.37	-7.97	
961.0	7.21	339.78	960.2	22.8	21.6	-7.5	3.95	3.83	8.33	
991.0	8.26	338.25	989.9	26.9	25.3	-9.0	3.57	3.50	-5.10	
1,021.0	9.37	340.00	1,019.6	31.5	29.6	-10.6	3.81	3.70	5.83	
1,051.0	10.24	338.38	1,049.1	36.6	34.4	-12.4	3.04	2.90	-5.40	
1,081.0	11.29	337.85	1,078.6	42.2	39.6	-14.5	3.52	3.50	-1.77	
1,111.0	12.13	338.47	1,108.0	48.3	45.3	-16.8	2.83	2.80	2.07	
1,141.0	13.18	337.89	1,137.2	54.8	51.4	-19.2	3.53	3.50	-1.93	
1,171.0	13.97	337.10	1,166.4	61.9	57.9	-21.9	2.70	2.63	-2.63	
1,201.0	14.77	336.18	1,195.5	69.3	64.7	-24.9	2.77	2.67	-3.07	
1,231.0	15.38	335.39	1,224.4	77.1	71.8	-28.1	2.15	2.03	-2.63	
1,261.0	16.22	335.13	1,253.3	85.3	79.2	-31.5	2.81	2.80	-0.87	
1,291.0	17.09	336.27	1,282.0	93.9	87.1	-35.0	3.10	2.90	3.80	
1,321.0	17.93	334.91	1,310.7	102.9	95.3	-38.7	3.11	2.80	-4.53	
1,351.0	18.54	336.53	1,339.1	112.2	103.9	-42.6	2.64	2.03	5.40	
1,381.0	19.38	336.31	1,367.5	122.0	112.8	-46.5	2.81	2.80	-0.73	
1,411.0	20.13	337.06	1,395.8	132.1	122.1	-50.5	2.64	2.50	2.50	
1,441.0	21.01	337.59	1,423.8	142.7	131.8	-54.6	3.00	2.93	1.77	
1,471.0	21.62	338.11	1,451.8	153.6	141.9	-58.7	2.13	2.03	1.73	
1,501.0	21.88	339.26	1,479.7	164.7	152.3	-62.7	1.66	0.87	3.83	
1,531.0	22.15	338.29	1,507.5	175.9	162.8	-66.8	1.51	0.90	-3.23	
1,561.0	22.50	339.08	1,535.2	187.3	173.4	-70.9	1.54	1.17	2.63	
1,591.0	22.50	338.90	1,562.9	198.8	184.1	-75.1	0.23	0.00	-0.60	
1,621.0	22.50	339.08	1,590.7	210.3	194.8	-79.2	0.23	0.00	0.60	
1,651.0	22.90	339.92	1,618.3	221.9	205.7	-83.2	1.72	1.33	2.80	
1,681.0	23.47	340.07	1,645.9	233.7	216.8	-87.3	1.91	1.90	0.50	
1,711.0	23.64	340.26	1,673.4	245.6	228.0	-91.3	0.62	0.57	0.63	

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Design:	Actual	Database:	EDM 5000.1 Single User Db

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
1,741.0	23.77	339.56	1,700.9	257.7	239.4	-95.5	1.03	0.43	-2.33	
1,803.0	23.95	340.18	1,757.6	282.8	262.9	-104.1	0.50	0.29	1.00	
1,888.0	23.47	339.21	1,835.4	316.9	295.0	-116.0	0.73	-0.56	-1.14	
1,973.0	22.94	338.33	1,913.5	350.4	326.2	-128.1	0.75	-0.62	-1.04	
2,059.0	22.94	339.43	1,992.7	383.9	357.5	-140.2	0.50	0.00	1.28	
2,144.0	21.40	338.64	2,071.4	416.0	387.4	-151.6	1.85	-1.81	-0.93	
2,229.0	21.36	338.29	2,150.6	447.0	416.2	-163.0	0.16	-0.05	-0.41	
2,315.0	22.02	339.65	2,230.5	478.8	445.9	-174.4	0.96	0.77	1.58	
2,400.0	23.25	340.62	2,308.9	511.5	476.7	-185.5	1.51	1.45	1.14	
2,486.0	22.46	340.18	2,388.2	544.8	508.1	-196.7	0.94	-0.92	-0.51	
2,571.0	23.73	339.08	2,466.4	578.2	539.4	-208.3	1.58	1.49	-1.29	
2,656.0	23.03	338.99	2,544.4	611.9	570.9	-220.4	0.82	-0.82	-0.11	
2,742.0	23.99	338.33	2,623.3	646.2	602.8	-232.9	1.16	1.12	-0.77	
2,827.0	23.42	337.85	2,701.1	680.4	634.5	-245.6	0.71	-0.67	-0.56	
2,913.0	22.76	337.10	2,780.2	714.1	665.7	-258.6	0.84	-0.77	-0.87	
2,998.0	23.99	338.42	2,858.2	747.8	696.9	-271.3	1.57	1.45	1.55	
3,083.0	23.47	337.72	2,936.0	782.0	728.6	-284.1	0.70	-0.61	-0.82	
3,169.0	22.56	336.94	3,015.2	815.6	759.7	-297.0	1.12	-1.06	-0.91	
3,254.0	23.60	338.51	3,093.4	849.0	790.5	-309.7	1.42	1.22	1.85	
3,339.0	22.81	338.47	3,171.5	882.5	821.7	-321.9	0.93	-0.93	-0.05	
3,425.0	21.75	337.52	3,251.1	915.1	851.9	-334.1	1.30	-1.23	-1.10	
3,510.0	22.15	340.00	3,329.9	946.8	881.5	-345.7	1.19	0.47	2.92	
3,596.0	23.07	340.44	3,409.3	979.9	912.6	-356.8	1.09	1.07	0.51	
3,681.0	23.81	340.42	3,487.3	1,013.6	944.5	-368.2	0.87	0.87	-0.02	
3,766.0	22.97	340.16	3,565.3	1,047.4	976.2	-379.5	1.00	-0.99	-0.31	
3,852.0	21.97	339.34	3,644.8	1,080.2	1,007.1	-390.9	1.22	-1.16	-0.95	
3,937.0	20.04	338.73	3,724.1	1,110.7	1,035.5	-401.8	2.29	-2.27	-0.72	

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Site:	Yater	MD Reference:	YATER 12D-17-07-95 @ 5536.0usft (Capstar 321)
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4,022.0	18.19	338.16	3,804.4	1,138.5	1,061.4	-412.0	2.19	-2.18	-0.67	
4,108.0	15.25	337.59	3,886.8	1,163.3	1,084.3	-421.3	3.42	-3.42	-0.66	
4,193.0	13.36	338.07	3,969.2	1,184.3	1,103.8	-429.3	2.23	-2.22	0.56	
4,279.0	10.81	336.49	4,053.3	1,202.3	1,120.4	-436.2	2.99	-2.97	-1.84	
4,364.0	9.30	340.07	4,136.9	1,217.1	1,134.2	-441.7	1.92	-1.78	4.21	
4,450.0	6.77	341.94	4,222.1	1,229.1	1,145.5	-445.7	2.96	-2.94	2.17	
4,535.0	4.39	341.28	4,306.7	1,237.3	1,153.4	-448.3	2.80	-2.80	-0.78	
4,621.0	1.67	336.22	4,392.6	1,241.9	1,157.6	-449.8	3.17	-3.16	-5.88	
4,706.0	1.36	336.44	4,477.5	1,244.1	1,159.7	-450.7	0.36	-0.36	0.26	
4,791.0	1.14	328.49	4,562.5	1,246.0	1,161.3	-451.6	0.33	-0.26	-9.35	
4,877.0	1.28	320.48	4,648.5	1,247.7	1,162.8	-452.6	0.25	0.16	-9.31	
4,962.0	1.00	307.82	4,733.5	1,249.3	1,164.0	-453.8	0.44	-0.33	-14.89	
5,048.0	1.01	285.60	4,819.5	1,250.4	1,164.7	-455.1	0.45	0.01	-25.84	
5,133.0	1.14	279.27	4,904.4	1,251.3	1,165.0	-456.7	0.21	0.15	-7.45	
5,219.0	0.31	358.35	4,990.4	1,251.9	1,165.4	-457.5	1.31	-0.97	91.95	
5,304.0	0.35	204.52	5,075.4	1,252.0	1,165.4	-457.7	0.76	0.05	-180.98	
5,390.0	1.01	192.04	5,161.4	1,251.2	1,164.4	-457.9	0.78	0.77	-14.51	
5,475.0	1.27	211.77	5,246.4	1,250.0	1,162.8	-458.6	0.55	0.31	23.21	
5,560.0	1.45	194.19	5,331.4	1,248.6	1,161.0	-459.3	0.53	0.21	-20.68	
5,646.0	0.75	156.53	5,417.4	1,247.1	1,159.4	-459.4	1.13	-0.81	-43.79	
5,731.0	1.19	59.46	5,502.4	1,246.7	1,159.4	-458.4	1.74	0.52	-114.20	
5,817.0	0.75	30.23	5,588.4	1,247.2	1,160.3	-457.3	0.75	-0.51	-33.99	
5,902.0	0.79	56.60	5,673.3	1,247.6	1,161.1	-456.6	0.42	0.05	31.02	
5,988.0	0.70	42.41	5,759.3	1,248.0	1,161.8	-455.7	0.24	-0.10	-16.50	
6,073.0	0.31	37.09	5,844.3	1,248.3	1,162.4	-455.2	0.46	-0.46	-6.26	
6,158.0	0.35	161.67	5,929.3	1,248.2	1,162.3	-455.0	0.69	0.05	146.56	
6,244.0	1.10	349.10	6,015.3	1,248.7	1,162.9	-455.1	1.68	0.87	-200.66	

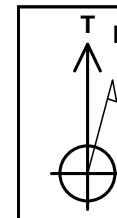
Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well YATER 12D-17-07-95
Project:	Rockies Region	TVD Reference:	YATER 12D-17-07-95 @ 5536.0usft (Capstar 321)
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6,329.0	1.27	347.52	6,100.3	1,250.5	1,164.6	-455.4	0.20	0.20	-1.86	
6,414.0	0.97	291.09	6,185.3	1,251.9	1,165.8	-456.3	1.28	-0.35	-66.39	
6,500.0	0.83	317.02	6,271.3	1,253.0	1,166.5	-457.4	0.50	-0.16	30.15	
6,585.0	1.23	246.80	6,356.3	1,253.5	1,166.6	-458.7	1.45	0.47	-82.61	
6,671.0	1.71	245.30	6,442.2	1,253.4	1,165.7	-460.7	0.56	0.56	-1.74	
6,756.0	1.63	240.12	6,527.2	1,253.2	1,164.6	-462.9	0.20	-0.09	-6.09	
6,799.0	1.89	236.38	6,570.2	1,253.0	1,163.9	-464.0	0.66	0.60	-8.70	
6,856.0	1.89	236.38	6,627.2	1,252.6	1,162.8	-465.6	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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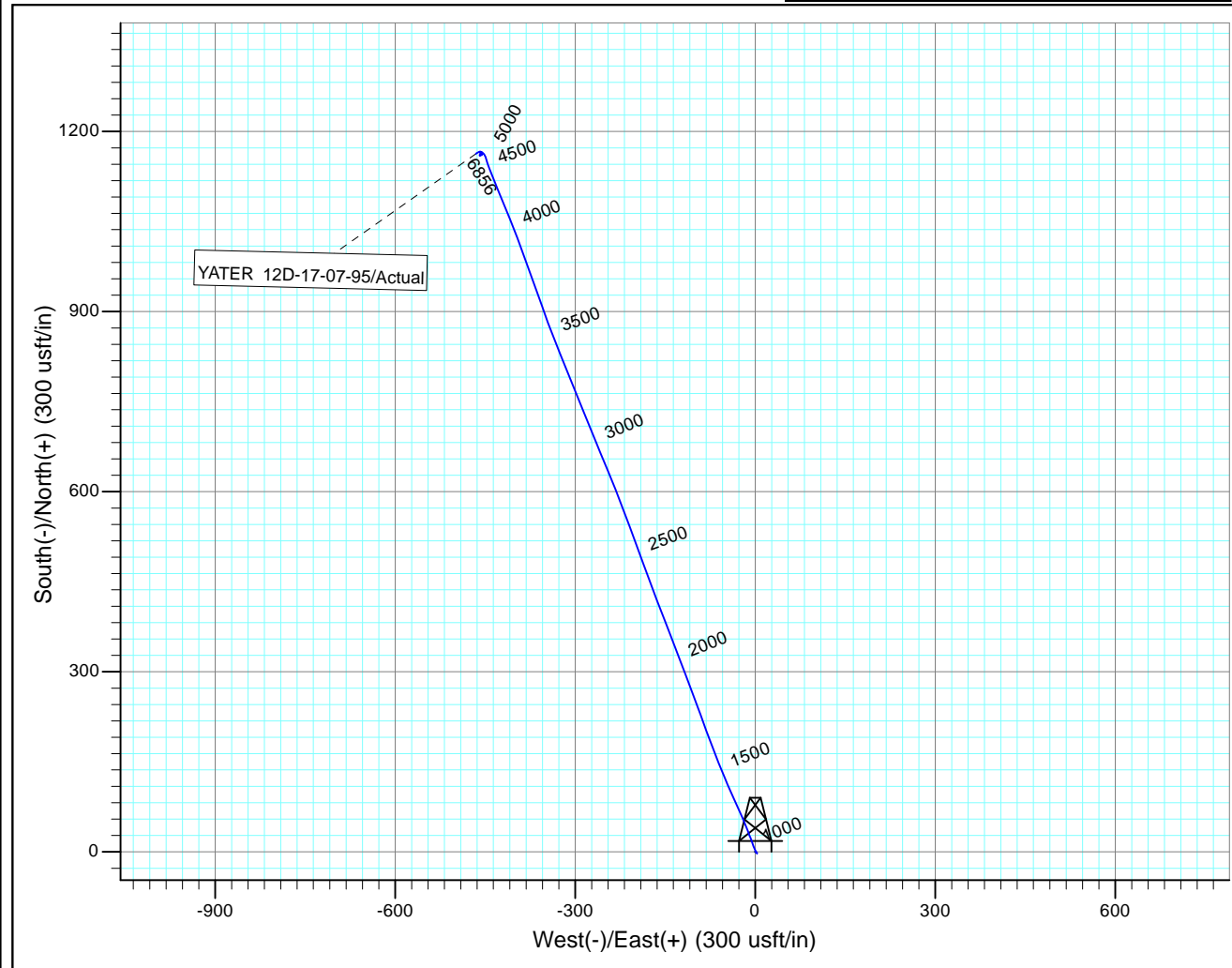
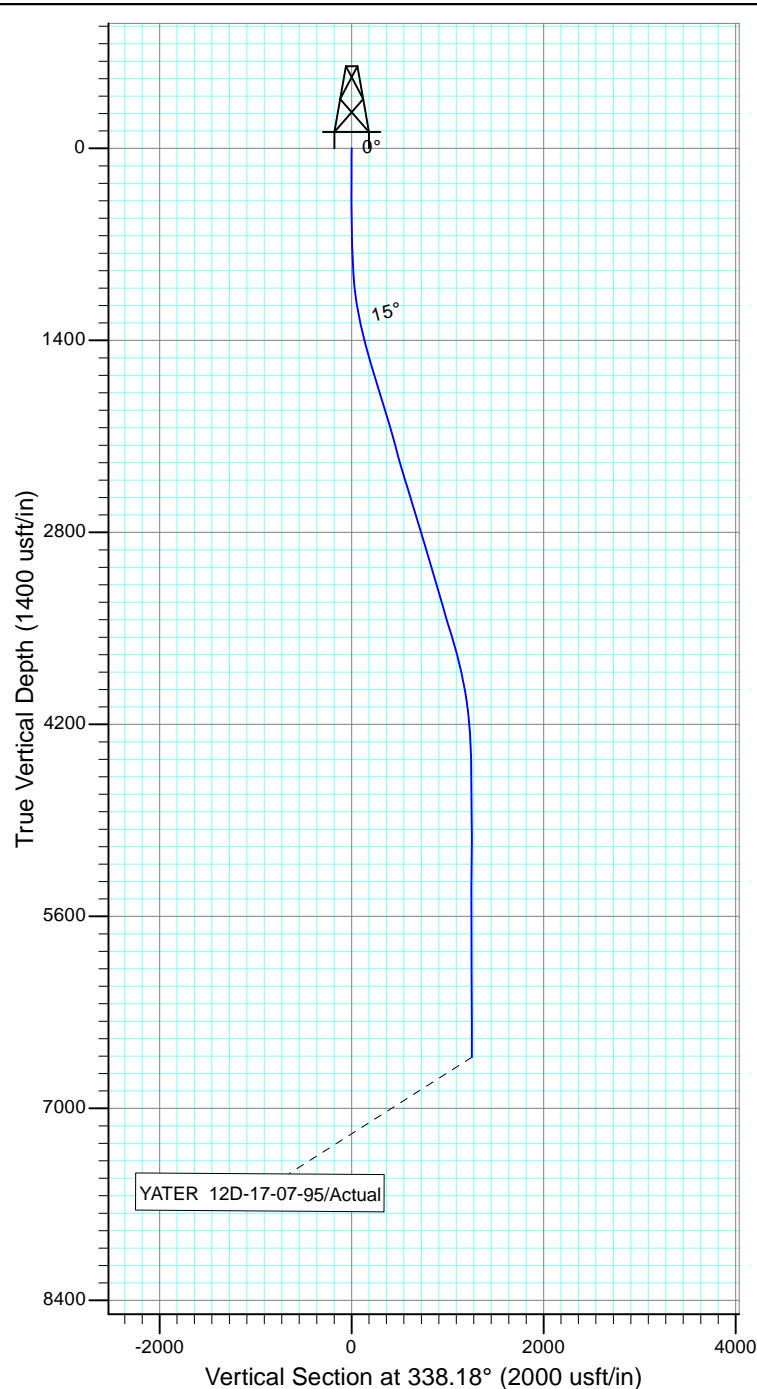


Project: Rockies Region
Site: Yater
Well: YATER 12D-17-07-95
Wellbore: Wellbore #1
Design: Actual



Azimuths to True North
Magnetic North: 9.93°

Magnetic Field
Strength: 51878.3snT
Dip Angle: 65.59°
Date: 10/23/2014
Model: IGRF2010



Design: Actual (YATER 12D-17-07-95/Wellbore #1)

Created By: *Matthew Linton*

Date: 10:17, March 19 2015

THIS SURVEY IS CORRECT TO THE BEST OF
MY KNOWLEDGE AND IS SUPPORTED
BY ACTUAL FIELD DATA